

METHODS AND APPARATUS FOR JOINING PIECES OF
THERMOPLASTIC MATERIAL TO FORM CELLULAR BLOCKS

ABSTRACT OF THE DISCLOSURE

5 A carrying mechanism repeatedly obtains pieces of thermoplastic material from a
supplying mechanism and provides them to a forming mechanism, where they are welded
together to form a cellular block. In the forming mechanism, the piece to be added to the
block and the piece most recently previously added to the block are arranged in opposing
face-to-face relation, and then they are welded together by contemporaneously forming
10 multiple spaced apart and elongate welds therebetween. The welding is performed by
positioning heating elements between the piece to be added to the block and the piece
most recently previously added to the block to heat laterally spaced apart strips of these
pieces, withdrawing the heating elements, and at the same time rolling welding
mechanisms along the strips so that the strips are nipped between the rolling welding
15 mechanisms and other welding mechanisms.

CLT01/4489562v5